CULTURAL RESOURCES SURVEY OF THE CENTRAL ELECTRIC POWER COOPERATIVE 115kV SALTERS TAP, WILLIAMSBURG COUNTY, SOUTH CAROLINA

Prepared By:
Michael Trinkley, Ph.D.
and
Nicole Southerland

Prepared For:
Mr. Tommy L. Jackson
Central Electric Power Cooperative, Inc.
PO Box 1455
Columbia, SC 29202

CHICORA RESEARCH CONTRIBUTION 372

Chicora Foundation, Inc.
PO Box 8664
Columbia, SC 29202-8664
803/787-6910
Email:chicora@bellsouth.net
www.chicora.org

November 15, 2002

This report is printed on permanent paper ∞

ABSTRACT

This report provides the results of a cultural resources investigation of a 7.3 mile transmission line and substation situated in the south-central portion of Williamsburg County. The study was conducted by Dr. Michael Trinkley of Chicora Foundation for Mr. Tommy Jackson of Central Electric Power Cooperative and is intended to assist this client comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The corridor is to be used by Central Electric Power Cooperative for the construction of the Salters Tap Transmission Line. The proposed corridor will start near S-219 and will head west toward an existing substation on US 521.

The proposed route will require the clearing of the corridor, followed by construction of the proposed transmission line and substation. These activities have the potential to affect archaeological and historical sites which may be in the project corridor. For this study an area of potential effect (APE) 0.5 mile around the proposed transmission line was assumed. It should be noted, however, that about 1,800 feet of the project corridor is paralleling an existing transmission line.

Consultation with the S.C. Department of Archives and History revealed four previously identified sites within the 0.5 mile APE. Site 205-0012 is a ca. 1930 tobacco barn which has been determined not eligible for the National Register of Historic Places. Site 205-0092 is the ca. 1900 Gourdin house which is determined potentially eligible for the National Register. Site 205-0093 is a ca. 1940 house that has been determined not eligible for the National Register. Site 205-0094 is the ca. 1900 Railroad house that has been determined not eligible for the National Register of Historic Places.

An investigation of the archaeological site files at the S.C. Institute of Archaeology and Anthropology identified seven previously recorded sites, 38WG87-93, within the APE. Site 38WG87 is a twentieth century site. Site 38WG88 is a Woodland lithic and ceramic scatter with late nineteenth to early twentieth century scatter. Site 38WG89 is a Woodland lithic and ceramic scatter. Site 38WG90 is a twentieth century structure. Site 38WG91 is a prehistoric lithic and ceramic scatter. Site 38WG92 is a twentieth century home and associated buildings. Site 38WG93 is a Woodland lithic and ceramic scatter and a late nineteenth to early twentieth century scatter of artifacts. All have been previously recommended not eligible for inclusion on the National Register.

The archaeological study of the tract incorporated shovel testing at 100-foot intervals along the center line of the proposed corridor, which had been cut and staked at the time of this investigation. The substation lot had already been disturbed at the time of the survey, so a pedestrian survey was performed. All shovel test fill was screened through ¼-inch mesh and the shovel tests were backfilled at the completion of the study. A total of 416 shovel tests were excavated in the survey tract.

Two archaeological sites (38WG90 and 38WG162) were identified as a result of these investigations. 38WG90, previously identified by another survey (see Wheaton 1982), is a twentieth century structure. We concur with the original recommendation of not eligible for the National Register of Historic Places. Site 38WG162 is a Middle Woodland pottery scatter which is recommended not eligible for the National Register of Historic Places.

A survey of public roads within 0.5 mile of the survey area was conducted in an effort to identify any architectural sites over 50 years old which also retained their integrity. No additional structures beyond those previously recorded were identified during this investigation.

It is possible that archaeological remains may be encountered in the project area during

construction. Construction crews should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office or to Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No construction should take place in the vicinity of these late discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

TABLE OF CONTENTS

LIST OF FIGURES

INTRODUCTION

This investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Tommy Jackson of the Central Electric Power Cooperative. The work was conducted to assist Central Electric Power Cooperative comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The project site consists of a 7.3 mile corridor proposed to be used for a transmission line in south-central Williamsburg County (Figure 1). The corridor starts at S-219 and runs west, connecting to a substation on US 521 (Figure 2).

The corridor consists of low flat areas of wetlands, higher areas of pines and hardwoods, and cultivated fields. The surrounding area still remains rural with little development occurring in the region.

The corridor, as previously mentioned, is intended to be used as a transmission route. The proposed width of the corridor is 75 feet. Landscape alteration, primarily clearing, as well as subsequent erection of the wood poles, will cause some damage to the ground surface and any archaeological resources which may be present in the survey area.

Construction, operation, and maintenance of the transmission line and substation may also have an impact on historic resources in the project area. Powerline corridors (as well as other above grade projects) may detract from the visual integrity of historic properties, creating what many consider discordant surroundings. Because of the small size of the poles to be used (80 feet or less in height), this impact is anticipated to be modest. Nevertheless, this architectural survey uses an area of potential effect (APE) about 0.5 mile around the proposed line. It should be noted, however, that about 1,800 feet of the survey corridor parallels an existing transmission line.

This study, however, does not consider any future secondary impact of the project, including increased or expanded development of this portion of Williamsburg County.

We were requested by Mr. Tommy Jackson of Central Electric Power Cooperative to conduct a cultural resources background check for the proposed transmission line on March 19, 2002. This incorporated a review of the site files at the South Carolina Institute of Archaeology and Anthropology. As a result of that work, seven sites, 38WG87-93, were found within the APE. All sites were recommended not eligible for the National Register of Historic Places. Site 38WG87 is a twentieth century site. Site 38WG88 is a Woodland lithic and ceramic scatter with late nineteenth to early twentieth century scatter. Site 38WG89 is a Woodland lithic and ceramic scatter. Site 38WG90 is a twentieth century structure. Site 38WG91 is a prehistoric lithic and ceramic scatter. Site 38WG92 is a twentieth century home and associated buildings. Site 38WG93 is a Woodland lithic and ceramic scatter and a late nineteenth to early twentieth century scatter of artifacts.

In addition, the South Carolina Department of Archives and History GIS was consulted to check for any NRHP buildings, districts, structures, sites, or objects in the study area. No NRHP sites were found within the 0.5 mile APE, although no comprehensive survey has been completed for Williamsburg County. Four architectural resources (205-0012, 205-0092-0094), however, were located nearby. Site 205-0012 is a ca. 1930 tobacco barn which has been determined not eligible for the National Register of Historic Places. Site 205-0092 is the ca. 1900 Gourdin house which is determined potentially eligible for the National Register. Site 205-0093 is a ca. 1940 house that has been determined not eligible for the National Register. Site 205-0094 is the ca. 1900 Railroad house that has been determined not eligible for the National Register of Historic Places.

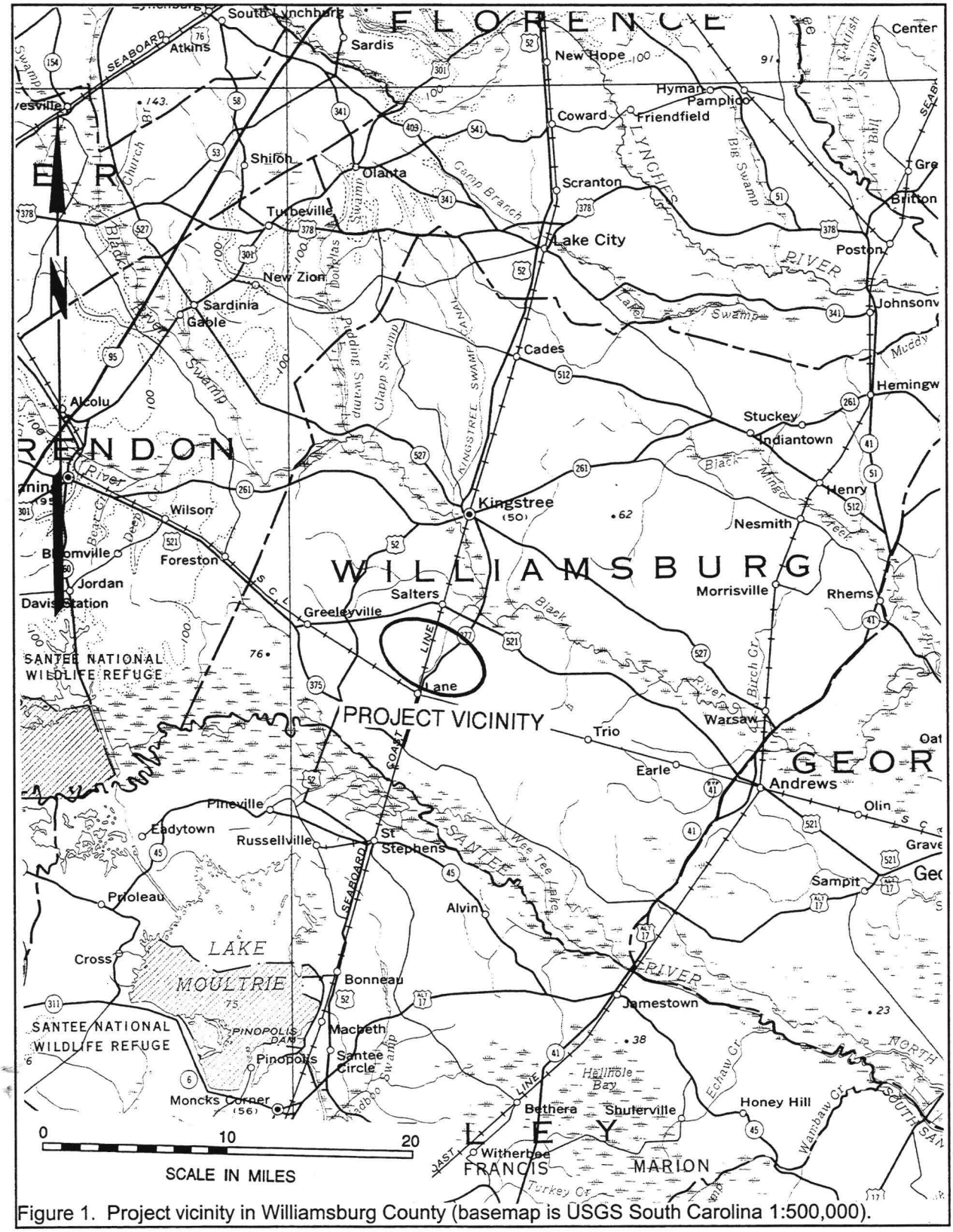

Figure 1. Project vicinity in Williamsburg County (basemap is USGS South Carolina 1:500,000).

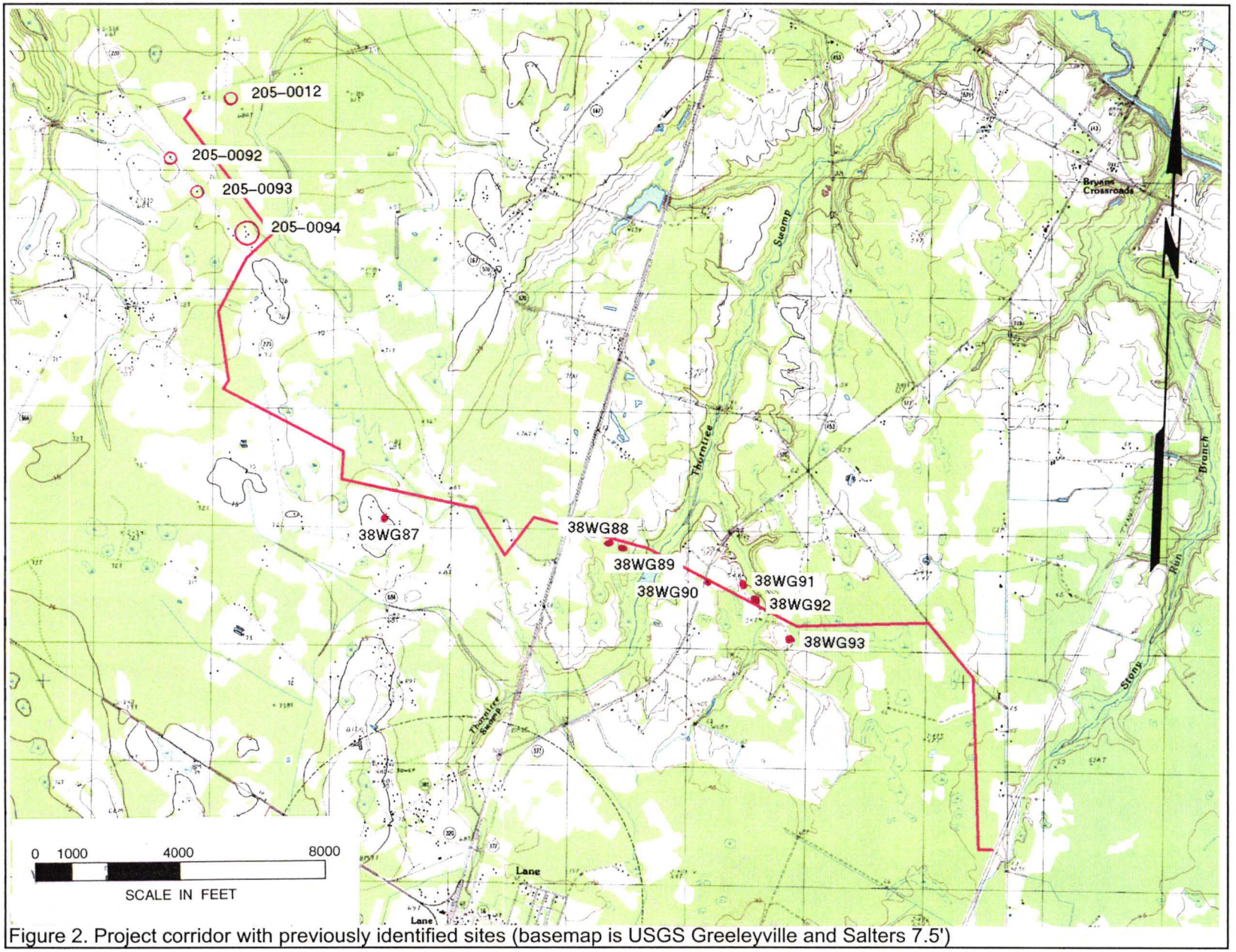

Figure 2. Project corridor with previously identified sites (basemap is USGS Greeleyville and Salters 7.5')

Archival and historical research was limited to a review of secondary sources available in the Chicora Foundation files.

The archaeological survey was conducted from October 28-November 1, 2002 by Mr. Tom Covington under the direction of Dr. Michael Trinkley and revealed two archaeological sites, 38WG90 and 38WG162. Both of these sites have been recommended not eligible for the National Register of Historic Places. Report production was conducted at Chicora's laboratories in Columbia, South Carolina from November 13-19, 2002.

Two archaeological site forms, one for each site in this study, have been filed with the South Carolina Institute of Archaeology and Anthropology (SCIAA). The field notes, artifact catalogs, and artifacts resulting from these investigations will be curated at SCIAA using their accessioning and cataloging system once the project is complete. All records and duplicate copies will be provided to SCIAA and will be maintained by that institution in perpetuity. The only photographic materials associated with this project are color prints, which are not archival. The negatives and prints for these photographs are retained by Chicora Foundation.

NATURAL ENVIRONMENT

Physiography

The project is situated in south central Williamsburg County. Williamsburg itself is in the eastern part of South Carolina, bordered on the east by Georgetown County and separated from Marion County on the northeast by the Great Pee Dee River. It is bordered on the north by Florence County and on the west by Clarendon County. It is separated from Berkeley County on the south by the Santee River.

The topography of the project area consists of nearly level terraces overlooking wetlands and the equally level adjacent flood plains. Elevations in the project area range from a high of about 80 feet above mean sea level (AMSL) in the more upland terraces overlooking the wetlands to a low of about 50 feet AMSL where the corridor crosses Thorntree Swamp (see Figure 4). Elevations in the County range from about 8 feet AMSL along some sections of the Black River to about 90 feet in the northwestern part of the county (Ward 1989:1). Overall, the entire region generally slopes towards the Atlantic Ocean.

Often described as flatwoods, the project corridor crosses an area often characterized by broad flat areas, which consist of a few low ridges and bay depressions. The most common depressions in the Coastal Plain are Carolina bays, usually marshy and oval in shape (Richards 1959:45-46). Water depth varies from shallow lakes to areas with a preponderance of peat and herbaceous species (Barry 1980:131-33). Edmond Ruffin, a mid-nineteenth century observer, commented that these features provided good pasturage for cattle (Mathew 1992:210).

A number of rivers, creeks, and swamps join together to form a dendritic network that impeded much of the early settlement in this region. Major rivers within the area are the Black, Santee, Lake Swamp, Lynches, Pee Dee, and Black Mingo. Swamps and inland bays are found associated with most of these rivers and, again, are common to a number of the counties. These

Figure 3. View of a cultivated field along the corridor.

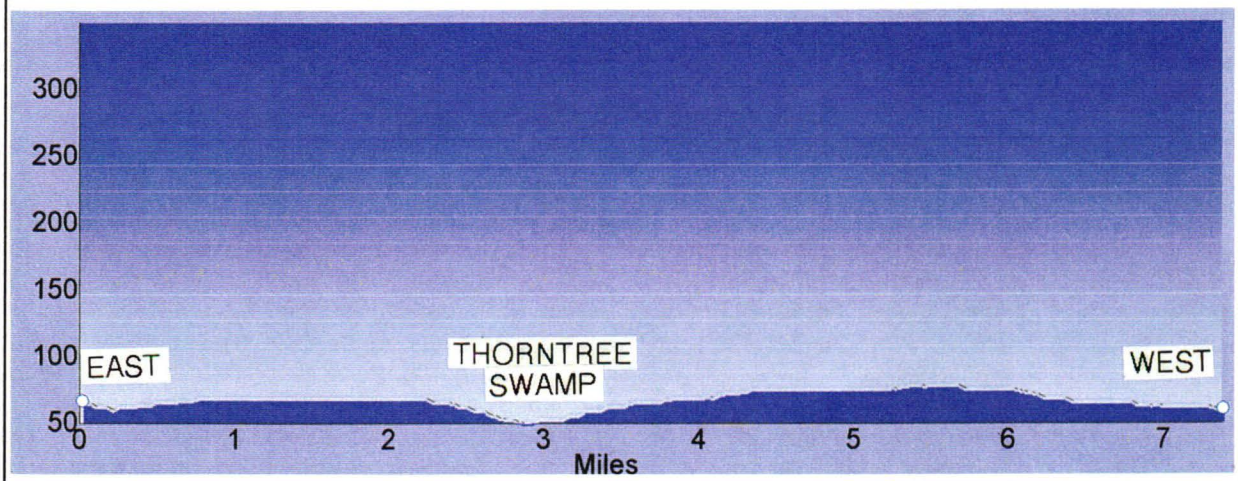

Figure 4. Profile of the corridor showing the elevation.

include Kingstree Swamp and Tupelo Bay found in other sections of the county, as well as Thorntree Swamp in the project area. The better soils are typically in areas that are slightly sloping toward drainageways. It is in these areas that most cultivation and development has taken place. These soils, however, merge outward onto wide flats that are nearly level and only occasionally broken by slight elevated areas or lower swales or bays. Soils in these areas are generally poorly drained loamy sands and the typical vegetation is usually mesic or swampy, often characterized by bay trees.

Geology and Soils

The geology is characteristic of the Coastal Plain. The parent materials of the soils are marine or fluvial deposits which consist of varying amounts of sands, silts, and clays. There is one primary geologic formation in the project area, deposited at different periods during alternating transgression and recession of the ocean: the Penholoway terrace. This terrace contains more upland areas and in Williamsburg County, the Penholoway terrace reaches its maximum width of about 25 miles (Cooke 1936:8).

The project corridor crosses two soil associations. The Lynchburg-Rains is found in nearly level areas and have somewhat poorly drained and poorly drained soils. The Goldsboro-Noboco-Coxville association is found on nearly level broad flats and generally have well drained soils.

The proposed transmission line crosses eight individual soil series (Ward 1989). Found most often along the corridor are Goldsboro soils. This series has an A horizon of dark grayish brown (10YR4/2) loamy fine sand to a depth of 0.7 foot over a pale brown (10YR6/3) loamy sand to a depth of 1.3 feet. These soils are moderately well drained and are found in the upland areas of the Coastal Plain.

Also found in many areas along the corridor are Coxville loams and Rains fine sandy loams. Both soil types are poorly drained and are typically found in the upland areas of the Coastal Plain. The Coxville series has an A horizon of dark grayish brown (10YR4/2) loam to a depth of 0.5 foot over a grayish brown (10YR5/2) loam to just under 1.0 foot. Rains soils have an A horizon of very dark gray (10YR3/1) fine sandy loam to a depth of 0.5 foot over a grayish brown (10YR5/2) fine sandy loam to just under 1.0 foot.

Lynchburg soils and Noboco soils are also found along the corridor. Lynchburg soils are somewhat poorly drained soils that have an A horizon of very dark gray (10YR3/1) fine sandy loam to a depth of 0.5 foot over a light yellowish brown (19YR6/4) sandy loam to 1.0 foot in depth.

The Noboco Series has an Ap horizon of grayish brown (10YR52) loamy fine sand to a depth of 0.6 foot over a pale brown (10YR6/3) loamy fine sand to 1.0 foot. Because of the well drained soils found in this series, this land is well suited for growing such crops as tobacco, cotton, and corn.


Figure 5. View of wetlands along the corridor.

The last three soils, Chisolm loamy fine sands, Emporia loamy sands, and Yemassee sandy loams, are found in only a few areas along the corridor. Chisolm and Emporia soils are both well drained with the Chisolm Series exhibiting an A horizon of grayish brown (10YR5/2) loamy fine sand to a depth of 0.3 foot over a very pale brown (10YR7/4) loamy fine sand to a depth of 2.3 feet. Emporia soils have an Ap horizon of brown (10YR5/3) loamy sand to a depth of 0.7 foot over a yellowish brown (10YR5/8) sandy clay loam to a depth of 1.9 feet.

The final soil, Yemassee sandy loam, is only found on the eastern most portion of the corridor. This soil has an Ap horizon of very dark gray (10YR3/1) sandy loam to a depth of 0.5 foot over a brownish yellow (10YR6/6) sandy loam to a depth of 1.5 feet. Yemassee soils are somewhat poorly drained, which makes it well suited for growing corn.

Mills (1972[1826]) comments that the swampland soils are composed of the "richest soil." He notes for the nearby Marion District that "[while the swamp lands reclaimed and secured from freshets, will bring 50 dollars an acre; and the oak and hickory lands 15 dollars an acre; the pine lands will scarcely sell for 1 dollar per acre" (Mills 1972[1826]:623). The flatlands "are, by comparison, sand barrens; yet occasionally presenting some good timber land" (Mills 1972[1826]:513). And while the uplands were healthy, with summers free of disease, he observed that, "on the rivers, creeks, and flat lands, this district is subject to bilious fevers, and cannot be called healthy" (Mills 1972[1826]:515). The products cultivated during that time were "cotton, corn, wheat, pease, and potatoes" (Mills 1972[1826]:623).

Floristics

There are two major categories of plant communities, based primarily on topographic location, which exist in the project area. The first category consists of upland vegetation. Supported here are a mixture of coniferous and deciduous forests dominated by pines and broadleaf taxa such as upland oaks, sweetgum, hickories, and various understory species. Incorporated may be small upland depressions and drainages, which contain more hydric species.

Portions of the upland area were found to contain pine forest, typically found on soils of low fertility, high acidity, and excessive drainage. Most often these areas have been subjected to extensive disturbance, including repeated logging operations, and the pine represent an early stage of revegetation. A few areas of hardwood forest exist in the project area, where oaks, maple, sweetgum, black gum, and mockernut hickory are prevalent. More common, however are mixed forests, containing both pines and hardwoods.

Lowland forests, which account for the second category, are located on the floodplains and swamps of the corridor. These floodplain soils are forested with bald cypress, gum, sycamore, water hickory, lowland oaks, soft maples, willows, and other herbaceous species.

In the early nineteenth century Mills observed that:

> The long leafed pine is most abundant of the forest trees; next the cypress, various kinds of oak, the hickory, tupelo, &c. Of fruit trees the peach, apple, pear, plum, &c are common . . . . The pine and cypress are made most use for building, but good clay is found in various places, suitable to make brick (Mills 1972 [1826]: 624-5).

Mills also observed that the major use of these forest resources was construction, also noting that "good clay is found in various places, suitable to make brick" (Mills 1972[1826]:625). Only lime, largely made of burnt shells, needed to be imported into the area (primarily from neighboring Georgetown). Mills encouraged the residents to make better use of their local "shell limestone" for lime, a suggestion which appears to have made little impact in the local economy (Mills 1972[1826]:628).

Climate

The general climate of the area is characterized by mild humid conditions. This climate is influenced by the warm Gulf Stream, as well as by the Appalachian Mountains which block the coldest air masses. Other factors include latitude, elevation, distance from the ocean, and location with respect to the average tracts of migratory cyclones. Day to day weather is controlled primarily by the movement of pressure systems across the nation. However, during the summer months there are few complete exchanges of air masses because tropical maritime air persists fro extended periods (Ward 1989).

The average annual precipitation in the four county area ranges from 49.6 inches and is unevenly distributed throughout the year, with 31.6 inches occurring from April through October which is the primary growing season (Ward 1989:112).

The climate, according to Mills (1972[1826]), "taking the whole year round, is pleasant." The annual average temperature in Williamsburg is 75.2°F, and the average monthly temperature ranges from 57.0°F in January to 91.2°F in July. Frozen precipitation occurs only one to three times a year during the winter season. The abundant supply of warm, moist and relatively unstable air produces frequent scattered showers and thunderstorms in the summer. Severe weather usually means violent thunderstorms, tornadoes, and hurricanes. The tropical storm season is in late summer and early fall, although storms may occur as early as May or as late as October (Baldwin 1973). Heavy rains and high winds occur with tropical storms about once every six years. Storms of hurricane intensity are much more infrequent. Notable droughts have occurred twice in modern times – in 1925 and 1954. Typically a serious drought may occur once every fifty years. Less severe dry periods have occurred more often, normally in late spring or in autumn (Pitts 1974:109).

Prehistoric Environment

A reconstruction of paleoenvironmental features has gradually emerged within the past several decades and is based on the work of Whitehead (1965, 1967, 1972, 1973) and Watts (1970, 1975, 1980). Unfortunately, our understanding of environmental change is general and is based almost entirely on pollen analysis of lake sediments and buried organic layers situated in Piedmont areas outside South Carolina. The

pollen studies give evidence of vegetational changes which in turn provide suggestions concerning climatic change. These studies can be important to the archaeologist because they allow inferences to be drawn on the nature of the cultural-environmental interactions, such as the adaptive shifts human populations made to counter ecological shifts. It is recognized that these inferences must be based on the paleoenvironment, not the extant environment.

Based largely on work from southeastern Virginia and North Carolina, Whitehead (1965) has employed a tripartite division of the preceding 25,000 years: Full Glacial (25,000 - 15,000 B.P.), Late Glacial (15,000 - 10,000 B.P.), and Post-Glacial or Holocene (10,000 B.P. - present).

During the Full Glacial the Coastal Plain was boreal, although the vegetation was sparse, which suggests a relatively dry climate. Voorhies (1974), based on a paleontological assemblage from east-central Georgia, suggests a cool, moist climate instead. Watts' (1980) work from White Pond at the edge of the Inner Coastal Plain, found jack pine, red spruce, and herbs which appear to reflect a boreal forest climate. During the Late Glacial period there was a gradual change to a hemlock-northern hardwoods forest type and eventually to a modern condition. From White Pond, Watts (1980) identified a forest dominated by oak, hickory, beech, and ironwood and interprets this assemblage as a mesic deciduous forest typical of a cool and moist environment.

The mesic deciduous forest began to change early in the Holocene and was replaced by a more xeric forest comprised of modern flora. Again from White Pond, Watts (1980) notes the rapid loss of hickory, beech, and ironwood after 9,500 B.P. with the equally rapid rise of southern pine species. The oak species remain, and sweet gum and tupelo are found. An essentially modern flora is postulated by Whitehead (1965) and Watts (1971) by 5,000 B.P. with the spread of oak-hickory forests.

Of considerable interest to the reconstruction of the environment of the Late Woodland and early Historic periods are the descriptions of the early explorers and surveyors. One of the earliest descriptions is by John Lawson during his 1701 journey through the interior of South Carolina. Lawson left Charleston on December 18, 1700 and fifty-nine days later, arrived at the English settlements on the Pamlico River. During this trip Lawson passed to the west of Sumter County and observed the High Hills of Santee from the west bank of the Santee River swamp. Lawson state he:

> came to the most amazing Prospect I had seen since I had been in *Carolina*; we travell'd by a Swampside, which Swamp I believe to be no less than twenty miles over, the other Side being as far as I could well discern, there appearing great Ridges of Mountains . . . . (Lefler 1967:32).

In addition, Lawson describes the swamp areas as "extraordinarily rich, and the Runs of Water well stor'd with Fowl" and the land as well "extraordinarily rich, black Mould" (Lefler 1967:32). That night Lawson and his fellow travelers were awoken by the "hideous Noise" or "Musick" which resulted from the "endless Numbers of Panters, Tygers, Wolves, and other Beasts of Prey, which take this Swamp for their Abode in the day, coming in whole Droves to hunt the Deer in the Night" (Lefler 1967:33). Lawson noted that the next morning his Indian guide, Santee Jack, "kill'd 15 Turkeys this Day; there coming out of the Swamp, (about sun-rising) Flocks of these Fowl, containing several hundreds in a Gang, who feed upon the acorns, it being most Oak that grow in these Woods" (Lefler 1967:33).

This view suggests that the hardwood swamp areas of the Inner Coastal Plain were highly productive hunting areas. In fact, Santee Jack told Lawson's group that they should not stop until they arrived at the swamp edge because the hunting away from the swamp (presumably in the Inner Coastal Plain's Flatwoods area "was not good" (Lefler 1967:31-32). This offers some minor ethnographic support for the previously discussed swamp ecology and significance.

An analysis of early historic plat records provides additional information helpful for a thorough understanding of the area's ecology. Plummer reconstructed forest types in Georgia,

using original eighteenth century land survey maps which show boundary trees. He notes that:

> species in the Coastal Plain of southeast Georgia numbered 8-14 kinds although lowlands probably supported more numerous taxa. The frequency of pines ranged from 71-99%; gum trees, either black or tupelo, were second ranked, followed by red bay and thin cypress . . . . The vegetation was pine-oak-hickory at a ration of about 91:1:0.5 occurring on sandy sites and oaks, pines, sweet gum, hickory at about 42:20:7.6 on clayey sites (Plummer 1975:16).

Consequently, both the currently available data and this brief review of historic sources agree that the four county area might be defined by low swamp bottom lands which contain a wide variety of important subsistence items, and a sandy, rolling upland area which contains only minor subsistence resources because of its pine vegetation and rapidly permeable soils. It is probable that this dichotomy existed by 2,000 B.C. and perhaps as early as 5,000 B.C. (Haag 1975).

PREHISTORIC AND HISTORIC SYNOPSIS

Previous Research

Relatively little work has been performed in Williamsburg County. Derting et al. (1991) shows only 12 surveys within the county. All of the surveys represent compliance reports including road improvement projects (see Roberts 1987), transmission lines (see Wheaton 1982), and disposal sites (see Anthony et al. 1982). More recently, several surveys have been performed closer to the current project area including a transmission line to the northeast (Trinkley 2000) and a survey of the Federal Bureau of Prisons site (Louis Berger Group 2000).

Prehistory of the Region

The Paleoindian period, lasting from 12,000 to 8,000 B.C., is evidenced by basally thinned, side-notched projectile points; fluted, lanceolate projectile points; side scrapers; end scrapers; and drills (Coe 1964; Michie 1977; Williams 1968). The Paleoindian occupation, while widespread, does not appear to have been intensive. Artifacts are most frequently found along major river drainages, which Michie interprets to support the concept of an economy "oriented towards the exploitation of now extinct mega-fauna" (Michie 1977:124).

Unfortunately, little is known about Paleoindian subsistence strategies, settlement systems, or social organization. Generally, archaeologists agree that the Paleoindian groups were at a band level of society (see Service 1966), were nomadic, and were both hunters and foragers. While population density, based on the isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

The Archaic period, which dates from 8000 to 2000 B.C., does not form a sharp break with the Paleoindian period, but is a slow transition characterized by a modern climate an increase in the diversity of material culture. Associated with this is a reliance on a broad spectrum of small mammals, although the white tailed deer was likely the most commonly exploited mammal. The chronology established by Coe (1964) for the North Carolina Piedmont may be applied with little modification to the South Carolina coastal plain and piedmont. Archaic period assemblages, characterized by corner-notched and broad stemmed projectile points, are fairly common, perhaps because the swamps and drainages offered especially attractive ecotones.

In the Coastal Plain of the South Carolina there is an increase in the quantity of Early Archaic remains, probably associated with an increase in population and associated increase in the intensity of occupation. While Hardaway and Dalton points are typically found as isolated specimens along riverine environments, remains from the following Palmer phase are not only more common, but are also found in both riverine and interriverine settings. Kirks are likewise common in the coastal plain (Goodyear et al. 1979).

The two primary Middle Archaic phases found in the coastal plain are the Morrow Mountain and Guilford (the Stanly and Halifax complexes identified by Coe are rarely encountered). Our best information on the Middle Woodland comes from sites investigated west of the Appalachian Mountains, such as the work in the Little Tennessee River Valley. The work at Middle Archaic river valley sites, with their evidence of a diverse floral and faunal subsistence base, seems to stand in stark contrast to Caldwell's Middle Archaic "Old Quartz Industry" of Georgia and South Carolina, where axes, choppers, and ground and polished stone tools are very rare.

The Late Archaic is characterized by the

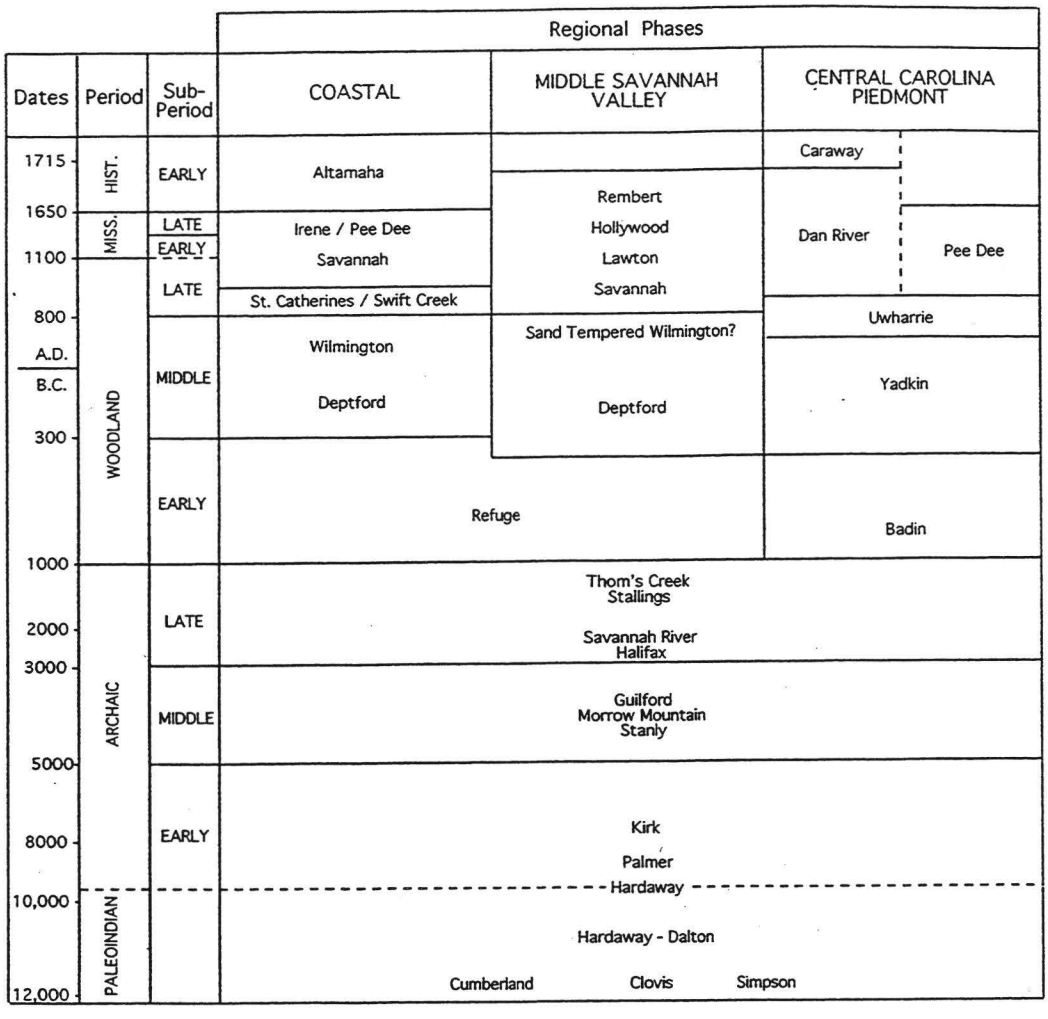

Figure 6. Generalized cultural sequence for South Carolina.

appearance of large, square stemmed Savannah River projectile points (Coe 1964). These people continued the intensive exploitation of the uplands much like earlier Archaic groups. The bulk of our data for this period, however, comes from work in the Uwharrie region of North Carolina.

The Woodland period begins, by definition, with the introduction of fired clay pottery about 2000 B.C. along the South Carolina coast (the introduction of pottery, and hence the beginning of the Woodland period, occurs much later in the Piedmont of South Carolina). It should be noted that many researchers call the period from about 2500 to 1000 B.C. the Late Archaic because of a perceived continuation of the Archaic lifestyle in spite of the manufacture of pottery. Regardless of terminology, the period from 2500 to 1000 B.C. is well documented on the South Carolina coast and is characterized by Stallings (fiber-tempered) pottery. The subsistence economy during this early period was based primarily on deer hunting and fishing, with supplemental inclusions of small mammals, birds,

reptiles, and shellfish.

Like the Stallings settlement pattern, Thom's Creek sites are found in a variety of environmental zones and take on several forms. Thom's Creek sites are found throughout the South Carolina Coastal Zone, Coastal Plain, and up to the Fall Line. The sites are found into the North Carolina Coastal Plain, but do not appear to extend southward into Georgia.

In the Coastal Plain drainage of the Savannah River there is a change of settlement, and probably subsistence, away from the riverine focus found in the Stallings Phase (Hanson 1982:13; Stoltman 1974:235-236). Thom's Creek sites are more commonly found in the upland areas and lack evidence of intensive shellfish collection. In the Coastal Zone large, irregular shell middens; small, sparse shell middens; and large "shell rings" are found in the Thom's Creek settlement system.

The Deptford phase, which dates from 1100 B.C. to A.D. 600, is best characterized by fine to coarse sandy paste pottery with a check stamped surface treatment. the Deptford settlement pattern involves both coastal and inland sites.

Inland sites such as 38AK228-W, 38LX5, 38RD60, and 38BM40 indicate the presence of an extensive Deptford occupation on the Fall Line and the Coastal Plain, although sandy, acidic soils preclude statements on the subsistence base (Anderson 1979; Ryan 1972; Trinkley 1980b). These interior or upland Deptford sites, however, are strongly associated with the swamp terrace edge, and this environment is productive not only in nut masts, but also in large mammals such as deer. Perhaps the best data concerning Deptford "base camps" comes from the Lewis-West site (38AK228-W), where evidence of abundant food remains, storage pit features, elaborate material culture, mortuary behavior, and craft specialization has been reported (Sassaman et al. 1990:96-98).

Throughout much of the Coastal Zone and Coastal Plain north of Charleston, a somewhat different cultural manifestation is observed, related to the "Northern Tradition" (e.g., Caldwell 1958). This recently identified assemblage has been termed Deep Creek and was first identified from northern North Carolina sites (Phelps 1983). The Deep Creek assemblage is characterized by pottery with medium to coarse sand inclusions and surface treatments of cord marking, fabric impressing, simple stamping, and net impressing. Much of this material has been previously designated as the Middle Woodland "Cape Fear" pottery originally typed by South (1976). The Deep Creek wares date from about 1000 B.C. to A.D. 1 in North Carolina, but may date later in South Carolina. The Deep Creek settlement and subsistence systems are poorly known, but appear to be very similar to those identified with the Deptford phase.

The Deep Creek assemblage strongly resembles Deptford both typologically and temporally. It appears this northern tradition of cord and fabric impressions was introduced and gradually accepted by indigenous South Carolina populations. During this time some groups continued making only the older carved paddle0stamped pottery, while others mixed the two styles, and still others (and later all) made exclusively cord and fabric stamped wares.

The Middle Woodland in South Carolina is characterized by a pattern of settlement mobility and short-term occupation. On the southern coast it is associated with the Wilmington phase, while on the northern coast it is recognized by the presence of Hanover, McClellanville or Santee, and Mount Pleasant assemblages. The best data concerning Middle Woodland Coastal Zone assemblages comes from Phelps' (1983:32-33) work in North Carolina. Associated items include a small variety of the Roanoke Large Triangular points (Coe 1964:110-111), sandstone abraders, shell pendants, polished stone gorgets, celts, and woven marsh mats. Significantly, both primary inhumation and cremations are found.

On the Coastal Plain of South Carolina, researchers are finding evidence of a Middle Woodland Yadkin assemblage, best known from Coe's work at the Doerschuk site in North Carolina (Coe 1964:25-26). Yadkin pottery is characterized by a crushed quartz temper and cord marked, fabric impressed, and linear check stamped surface treatments. The Yadkin ceramics are associated with medium-sized

triangular points, although Oliver (1981) suggests that a continuation of the Piedmont Stemmed Tradition to at least A.D. 300 coexisted with this Triangular Tradition. The Yadkin series in South Carolina was first observed by Ward (1978, 1983) from the White's Creek drainage in Marlboro County, South Carolina. Since then, a large Yadkin village has been identified by DePratter at the Dunlap site (38DA66) in Darlington County, South Carolina (Chester DePratter, personal communication 1985) and Blanton et al. (1986) and have excavated a small Yadkin site (389SU83) in Sumter County, South Carolina. Research at 38FL249 on the Roche Carolina tract in northern Florence County revealed an assemblage including Badin, Yadkin, and Wilmington wares (Trinkley et al. 1993:85-102). Anderson et al. (1982:299-302) offer additional typological assessments of the Yadkin wares in South Carolina.

Over the years the suggestion that Cape Fear might be replace by such types as Deep Creek and Mount Pleasant has raised considerable controversy. Taylor, for example, rejects the use of the North Carolina types in favor of those developed by Anderson et al. (1982) from their work at Mattassee Lake in Berkeley County (Taylor 1984:80). Cable (1991) is even less generous in his denouncement of ceramic constructs developed nearly a decade ago, also favoring adoption of the Mattassee Lake typology and chronology. This construct, recognizing five phases (Deptford I-III, McClellanville, and Santee I), uses a type variety system.

Regardless of terminology, these Middle Woodland Coastal Plain and Coastal Zone phases continue the Early Woodland Deptford pattern of mobility. While sites are found all along the coast and inland to the Fall Line, shell midden sites evidence sparse shell and artifacts. Gone are the abundant shell tools, worked bone items, and clay balls. Recent investigations at Coastal Zone sites such as 38BU747 and 38BU1214, however, have provided some evidence of worked bone and shell items at Deptford phase middens (see Trinkley 1990).

In many respects the South Carolina Late Woodland may be characterized as a continuation of previous Middle Woodland cultural assemblages. While outside the Carolinas there were major cultural changes, such as the continued development and elaboration of agriculture, the Carolina groups settled into a lifeway not appreciably different from that observed for the previous 500 to 700 years (cf. Sassaman et al. 1990:14-15). This situation would remain unchanged until the development of the South Appalachian Mississippian complex (see Ferguson 1971).

The South Appalachian Mississippian period, from about A.D. 1100 to A.D. 1640, is the most elaborate level of culture attained by the native inhabitants and is followed by cultural disintegration brought about largely by European disease. The period is characterized by complicated stamped pottery, complex social organization, agriculture, and the construction of temple mounds and ceremonial centers. The earliest phases include the Savannah and Pee Dee (A.D. 1200 to 1550).

Historical Synopsis

While the English settled Charleston in 1670, the northern frontier was ignored, except for Indian trade, until 1731, when the first Royal Governor of Carolina, Robert Johnson, directed 11 townships be laid out on the banks of various rivers, including one on the Black River. The settling of Georgetown (with its port of entry), however, greatly assisted in the population of the Williamsburg area. By 1734 the Carolina frontier was being divided into parishes, with the Williamsburg vicinity becoming part of Prince Frederick's Parish (Boddie 1923:9). Prior to that the area was primarily settled by Scotch-Irish, although much of the land was aquired by large planters speculating on the value of the newly opened land.

By 1737 surveys in the region had about ceased as there seemed to be no additional land suitable for cultivation remaining in the township and the population held steady at about 500 individuals (Wallace 1951:151). Boddie notes that John Witherspoon was one of the first settlers in the Boggy Swamp region, which is crossed by this survey. In addition, there were a number of English settling in the Black River area (Boddie 1923:30,33). The tenor of these early settlers was

described by Boddie:

> The deepest desire of every one of the original settlers, who came to Williamsburg, was to be let along by everybody and by everything, from his nearest neighbor to the King of England (Boddie 1923:37).

Initially the settlement was built on subsistence farming, with a focus on corn when wheat proved unsatisfactory. Coupled with this was cattle grazing, which required little capital investment, but a reasonably good return (Boddie 1923:40). As was the case in other frontier areas, indigo was eventually found to be more profitable than herding (Starr 1983), although the two were not mutually exclusive. As Boddie observes, "cattle made Williamsburg substantial; indigo made it rich" (Boddie 1923:90).

The indigo industry flourished in South Carolina because of its unusual advantages – an indirect bounty, a protective tariff, and a monopoly on the British market during the various wars which cut off access to the better Spanish and French indigo supplies (Sharrer 1971). Carolina indigo was typically of middling or poor quality, yet it brought high prices since nothing else was available. when it had to compete with other sources, its price fell – thus the Carolina love affair with indigo ran hot and cold. Nevertheless, it provided a cash crop which required only modest numbers of slaves – and was embraced by the Williamsburg farmers. Although accounts are not clear, it seems that by the end of the first half of the eighteenth century slavery was well established, even if most families owned five or fewer African Americans (Boddie 1923:87).

Mouzon's 1775 map of the vicinity of the Williamsburg Township reveals that the study area is situated in the lower corner of the 20,000 acre tract (Figure 7). Prior to the American Revolution Boddie would have us believe that Williamsburg was idyllic:

> Its doors were never locked and its windows were never barred. Its cornfields produced abundantly and its meadows were overflowing with cattle. Indigo ran riot so that cleared acres could not contain it. Tobacco and flax flourished wherever their seeds were sown. Roses bloomed and geraniums grew about the doorways. Morning suns came fresh out of the sea and evening showers brought peace to the troubled sands (Boddie 1923:94).

And the sands were, indeed, troubled. While Williamsburg may have been on the periphery of the economic and social turmoil, revolution was brewing. By December 1779, when Henry Clinton led an expeditionary force from New York to occupy Charleston, the war shifted from the Northern colonies to the South. In 1780 a 300 man battalion was raised in the area by Colonial John James and command was later assumed by General Francis Marion (Boddie 1923:98).

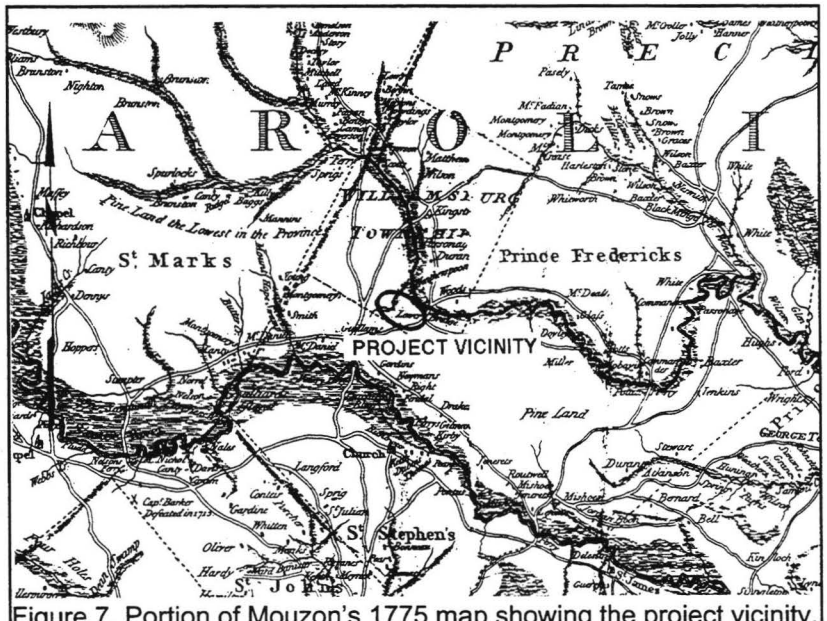

Figure 7. Portion of Mouzon's 1775 map showing the project vicinity.

Williamsburg was the scene of an early British campaign as Lt. Colonel Banastre Tarleton sent troops through the area, "to punish the inhabitants in that quarter for their late breaches of parole and perfidious revolt" (Boddie 1923:101). What Tarleton did not accomplish, Major Wemyess attempted when he crossed the Black River in August 1780 continuing to Kingstree, laying waste to the countryside. He was met by Colonel James and after a short skirmish Wemyess turned toward Georgetown, passing through and burning much of Indiantown (Boddie 1923:104). Only a month later Marion and his troops attached the British at their outpost on the Black Mingo, routing them and ending the British efforts to establish a chain of forts through the region (Boddie 1923:105-106).

After the American Revolution Williamsburg, like may other areas of South Carolina, lost the revenue of indigo. The once numerous herds cattle had been depleted by either Wigs or Tories. Boddie (1923:134) remarks that some cotton was grown, primarily along the Santee, rice was being tried in the Big Dam Swamp, and that some tobacco was planted. But neither could quickly, or effectively, replace the reliance on indigo. by 1788 there were only five buildings in all of Kingstree (Boddie 1923:138).

By the 1790 federal census Williamsburg, which was part of Georgetown District, had a population of about 3372 whites (39.2% of the population) and 5228 African American slaves (60.8% of the population), indicating that slavery by this point was firmly entrenched in the area. Moreover, while only about 53% of the families possessed slaves, the average holding was nearly 14 (Boddie 1923:154-170).

The end of the eighteenth century and beginning of the nineteenth century was a time of recovery and relative prosperity for the region. Boddie observed that in 1795 the road from Lenud's Ferry on the Santee River to Potato Ferry (also known as Potato Bed Ferry) on the Black River (today south of Warshaw) was established. This road generally followed what is today S-21 and SC 41. One of the commissioners appointed to care for the road was Theodore Gourdin, likely an ancestor of the Gourdins responsible for the general store at Millwood. This same Gourdin was the largest slave owner in the district, possessing 150 African Americans (Boddie 1923:247). By 1809 the Potato Ferry was vested in William Rowell of Georgetown, whose family is later associated with Trio, east of the corridor (Boddie 1923:209).

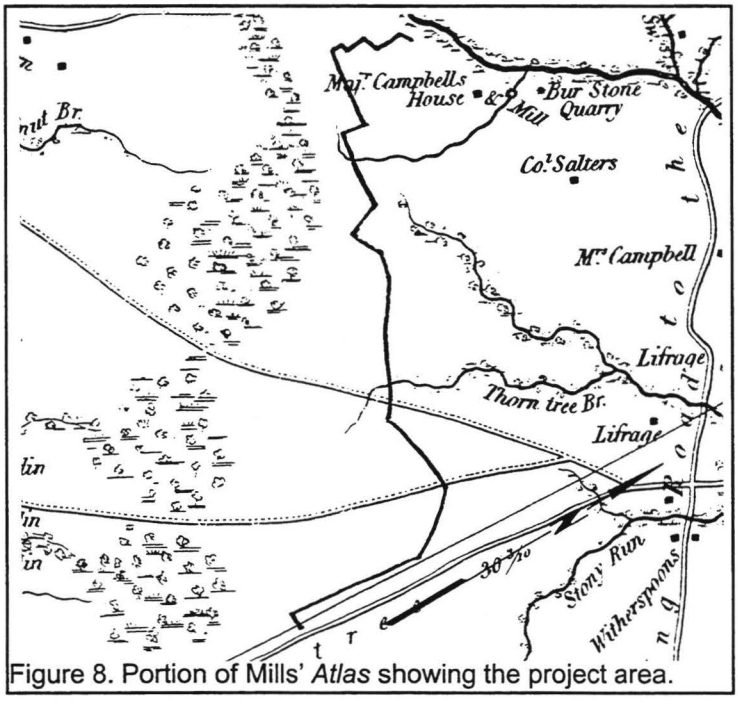

Figure 8. Portion of Mills' *Atlas* showing the project area.

By 1820 Mills commented that cotton was the principal cash crop, although corn, potatoes and peas were also being grown in the district. The slave population had grown to only 5,864, although they accounted for 67.3% of the total population (Mills 1972[1826]:767). The project area, however, was still shown largely empty by Mills (Figure 8) and most settlements were found along the sparse road system of the area. The 1830 census reveals that Williamsburg was still a very rural area. there were only a handful of distilleries or sawmills and the most common industry was blacksmiths, with 22 reporting from the district.

By 1850 slaves accounted for over 68% of the population and the white population had grown by only about 600 people since 1790. In terms of agricultural

production Williamsburg reveals a very modest economy. there were only 454 farms, possessing 70,360 improved acres. Only Kershaw District had fewer farms and the improved acres represented only 14% of the total farm acreage. However, the average farm size was only 1107 acres compared to nearby Horry District where the farms had a similar proportion of improved acres, but were more numerous and smaller (about 693 acres). Williamsburg produced only 100 pounds of tobacco, with the great bulk being produced by up country planters. There were only 4,298 bales of cotton produced, ranking the district 23rd (out of 29) in cotton production. It ranked 16th in the production of peas and beans and 11th in production of sweet potatoes – reflecting the continuing importance of subsistence crops in the area's economy.

In 1856 the Northeast Railway was built from Charleston northward through Williamsburg, opening the Charleston markets as they never had been before. Cotton production increased to 6,571 bales – 50% more than 10 years previously. Sweet potato production also increased, with Williamsburg ranked 9th in the state, while the area also increased its rank in rice production from 10th to 7th. McGill also observed that:

> the railroad advantages were so apparent, perhaps more so in the purchase of plantation implements, which eventually shut off many wood and blacksmith ship, once considered a necessity in every neighborhood . . . . Great quantities of beef cattle were shipped down to Charleston, to the great relief of cattle owners, who when driving them down generally lost a few in the Santee Swamp (McGill 1952:272).

The railroad had two other effects. First, trade with nearby Georgetown declined as farmers abandoned it in favor of Charleston. An d second, the easy access brought in the turpentine industry, largely from North Carolina. Both Boddie (1923:327) and McGill (1952:266) comment on the industry.

The Civil War did not immediately, or directly, affect Williamsburg. Boddie does note that early in the war a number of slaves were sent to the McClellanville shores to produce salt for Williamsburg County (Boddie 1923:372), but otherwise the war effort consisted of planting subsistence crops.

By May 1865 the citizens of the region requested that Union troops from Georgetown be sent to Williamsburg to keep order and the region came under military rule. Reconstruction had begun. With it so, too, had begun efforts by white South Carolinians to force African Americans back into something approaching bondage, known as the "Black Codes."

In 1865 the South Carolina legislature passed three laws. The first recognized that slavery no longer existed, but placed stringent economic and social restrictions on former slaves. The second law prohibited black farmers from selling anything without "written permission of the employer or District judge." It prohibited the ownership of weapons, and it allowed any white person to arrest any "person of color" for any misdemeanor. The third law instituted a "sunrise to sunset" workday, placed restrictions on movement, and provided liberal justifications for employee dismissal. In addition, the law stipulated that blacks could only be farm laborers or hired servants, unless they purchased an expensive license from the district court. This in effect closed the door on black economic opportunity. Farm laborers were docked pay for leaving the plantation without permission, damaging the owner's property, showing laziness, and even for being sick. Visitors were not allowed without permission, laborers had to work six days a week, and conversations were often not permitted during work. Workers' children could be removed to other plantations and African Americans could still be beaten for their supposed transgressions. In many parts of the state a pass system similar to slavery was again instituted.

By 1880 the South Carolina legislature had even further limited black economic opportunities, made oral contracts binding, favored white planters in all disputes, and made the breach of contract a criminal offense equivalent to fraud. Another law allowed

plantation owners to hold laborers on the plantation who owed them money.

The "Red Shirt Campaign" by Wade Hampton in 1876 was designed to further erode the few freedoms still held by African Americans. A campaign document directs, in part: "In speeches to negroes you must remember that argument has no effect upon them: they can only be influenced by their fears, superstition and cupidity. Do not attempt to flatter and persuade them . . . . Treat them so as to show them you are the superior race, and that their natural position is that of subordination to the white man."

As elsewhere in South Carolina, Williamsburg's economy was in shambles. Planters in many areas attempted to quickly return to cotton in the hopes of restoring some semblance of wealth and prosperity, but frequently found that the freedmen were little interested in returning to cotton. In the Williamsburg area, it seems that while cotton was important, so too was turpentine. In fact, by the 1880s, one source remarked:

> There is one great evil this country has to contend with, and which accounts for the low price of land, and that is the deposition of the mass of landowners to neglect their farms and to devote all their time and labor to cutting timber and crossties and working turpentine (Anonymous 1884:np).

In fact there were 16 saw mills in Williamsburg County producing $298,815 a year, and 26 turpentine stills producing $420,000 a year. Nevertheless, there were also 1,075 farms in the county. Those owned and operated by whites averaged about 47 acres in size. Those owned by African Americans averaged only 11.7 acres.

By 1900 the number of farms owned and operated by whites had nearly doubled and their acreage had increased to over 95 acres. In that year cotton production was 18,428 bales, ranking Williamsburg 21st out of 40 counties. But Williamsburg ranked sixth in tobacco production, with a yield of 904,330 pounds. While cotton and tobacco accounted for 30.7% and 0.9% of the improved farm acreage respectively, corn was being planted on 48,919 acres, or 36.6% of the improved land in Williamsburg, suggesting that subsistence farming was still vital to the county's economic base.

By 1910 cotton had grown to cover 41.9% of the improved acreage in Williamsburg County, and there were no fewer than 56 gins (Watson 1916:78). In contrast, tobacco had grown to cover 2.5% of the area's acreage. In contrast, corn acreage fell to 30.6%. The power of cotton, however, was soon broken by the boll weevil and, in 1930, cotton accounted for only 28.9% of the acreage, while tobacco increased to 10.5% of the available acreage. Improved acres themselves had declined from 156,000 acres in 1910 to only 119,350 acres in 1930.

During the Great Depression Williamsburg County began to change. As one account observed:

> many Northerners bought or leased homes in the country; it was a common sight for the Atlantic Coast Line trains to stop in Kingstee and from their pullmans would disembark the wealthy, the powerful, and even national leaders (Anonymous 1972:6).

Many of the once productive plantations were converted into hunting lodges, while others were left to decay.

By 1940, Williamsburg County had drastically curtailed cotton production, and 54.5% of the improved acreage was planted in corn. This echoes the comment of one individual in the Trio area who remarked that one year their gin was worth $100,000 while a year later, with almost no one planting cotton, it wasn't worth a dollar (Pearl Rowell, personal communication 2000).

It was also during this period that another change became more pronounced. In 1944 74% of Williamsburg County consisted of forests, with about equal amounts of sweet gum in the lowland areas and planted loblolly pines in the upland

areas (Penney 1945:21). These pines represented the new crop – timber.

Of course timber was not really a new crop – as implied by the 1884 account of the county, it had been competing with cotton for years. By at least 1875 The Georgetown and Western had opened a line from Georgetown to tie into the Atlantic Coast Line which ran across the Santee River into Kingstree. Along The Georgetown and Western line W.D. Bryan, W.R. Bryan, and James Bryan established the post office of Trio, east of the corridor, in 1883. An intricate network of rail lines were established to open swamps for timbering and by 1910 the G&W had 36 miles of main line and 60 miles of branches – all leading to the vast timber port of Georgetown (Fetters 1990:45-54).

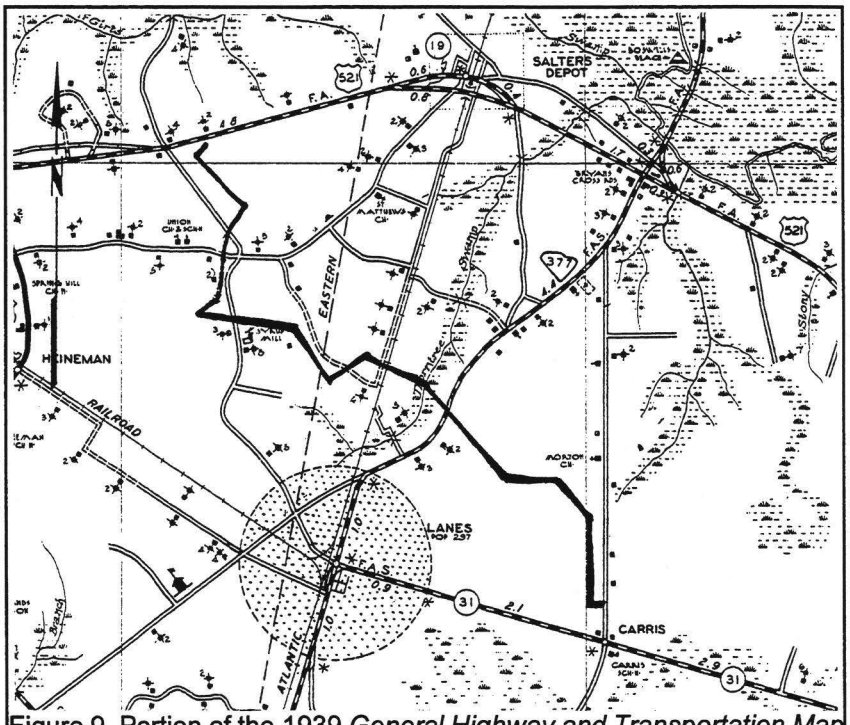

Figure 9. Portion of the 1939 *General Highway and Transportation Map of Williamsburg County* showing the project area.

The 1939 *General Highway and Transportation Map* for the project area (Figure 9) illustrates little development in the project area. Settlements are still focused on the road network. Although the project corridor runs in close proximity to several farms and associated tenant houses, much of the line is situated in areas that were probably wooded and of little economic importance.

RESEARCH METHODS

Archaeological Field Methods

The initially proposed field techniques involved the placement of shovel tests at 100 foot intervals along the center line of the corridor, which will be 75 feet in width.

All soil would be screened through ¼-inch mesh, with each test numbered sequentially. Each test would measure about 1 foot square and would normally be taken to a depth of at least 1 foot or until sterile subsoil was encountered. All cultural remains would be collected, except for mortar and brick, which would be quantitatively noted in the field and discarded. Notes would be maintained for profiles at any sites encountered. A total number of 416 shovel tests were excavated along the corridor.

Should sites (defined by the presence of two or more artifacts from either surface survey or shovel tests within a 50 feet area) be identified, further tests would be used to obtain data on site boundaries, artifact quantity and diversity, site integrity, and temporal affiliation. These tests would be placed at 25 to 50 feet intervals in a simple cruciform pattern until two consecutive negative shovel tests were encountered. The information required for completion of South Carolina Institute of Archaeology and Anthropology site forms would be collected and photographs would be taken, if warranted in the opinion of the field investigators.

These proposed techniques were implemented with no significant modifications. As previously reported, the survey area contained areas of wetlands, mixed pines and hardwoods, and cultivated fields, but was clearly marked in the field with survey stakes and a cut line. In addition, the corridor had been surveyed and we were provided with a plan sheet of the proposed line.

Analysis of collections followed professionally accepted standards with a level of intensity suitable to the quantity and quality of the remains. In general, prehistoric materials were defined by such authors as Yohe (1996), Blanton et al. (1986), and Oliver et al. (1986).

Architectural Survey

As previously discussed, we elected to use a 0.5 mile area of potential effect (APE). The architectural survey would record buildings, sites, structures, and objects which appeared to have been constructed before 1950 and which retained "some measure of its historic integrity" (Vivian 2001:5). Those which have undergone such extensive modifications to preclude their eligibility were not recorded.

For each identified resource an architectural survey form would be completed and at least two representative photographs would be taken. Permanent control numbers would be assigned by the S.C. Department of Archives and History at the conclusion of the study. The site forms for the resources identified during this study would then be submitted to the South Carolina State Historic Preservation Office.

Site Evaluation

Sites will be evaluated for further work based on the eligibility criteria for the National Register of Historic Places. Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the lead federal agency, in consultation with the State Historic Preservation Officer at the South Carolina Department of Archives and History.

The criteria for eligibility to the National Register of Historic Places is described by 36CFR60.4, which states:

> the quality of significance in American history, architecture, archaeology, engineering, and

culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

a. that are associated with events that have made a significant contribution to the broad patterns of our history; or

b. that are associated with the lives of persons significant in our past; or

c. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

d. that have yielded, or may be likely to yield, information important in prehistory or history.

National Register Bulletin 36 (Townsend et al. 1993) provides an evaluative process that contains five steps for forming a clearly defined explicit rationale for either the site's eligibility or lack of eligibility. Briefly, these steps are:

- identification of the site's data sets or categories of archaeological information such as ceramics, lithics, subsistence remains, architectural remains, or sub-surface features;

- identification of the historic context applicable to the site, providing a framework for the evaluative process;

- identification of the important research questions the site might be able to address, given the data sets and the context;

- evaluation of the site's archaeological integrity to ensure that the data sets were sufficiently well preserved to address the research questions; and

- identification of important research questions among all of those which might be asked and answered at the site.

This approach, of course, has been developed for use documenting eligibility of sites being actually nominated to the National Register of Historic Places where the evaluative process must stand alone, with relatively little reference to other documentation and where typically only one site is being considered. As a result, some aspects of the evaluative process have been summarized, but we have tried to focus on each archaeological site's ability to address significant research topics within the context of its available data sets.

Laboratory Analysis

The cleaning and analysis of artifacts was conducted in Columbia at the Chicora Foundation laboratories. These materials have been catalogued and accessioned for curation at the South Carolina Institute of Archaeology and Anthropology, the closest regional repository. the site forms for the identified archaeological sites, 38WG90 and 38WG162, have been filed with the South Carolina Institute of Archaeology and Anthropology. field notes have been prepared for curation using archival standards and will be transferred to the South Carolina Institute of Archaeology and Anthropology as soon as the project is complete.

RESULTS OF SURVEY

Introduction

The archaeological survey of the proposed transmission corridor revealed two sites, 38WG90 and 38WG162 (Figure 10). 38WG90 is a twentieth century structure while 38WG162 is a Middle Woodland ceramic scatter. Both sites have been recommended not eligible for the National Register of Historic Places.

The architectural survey identified no additional sites which would be eligible for inclusion on the National Register of Historic Places beyond those already identified.

Archaeological Resources

38WG90

Site 38WG90 is a twentieth century farmhouse (Figure 11). It is situated on an interior plain at an elevation of about 60 feet AMSL. The nearest body of water is a small tributary of Thorntree Swamp which is about 1200 feet northeast of the site. Topography in the area is slightly undulating, but the site sits on a level tract of land.

Typical vegetation at the site area includes pines and hardwoods with a dense understory. A central UTM coordinate for the site is E606168 N3712591 (NAD27 datum). The site is located near Station 134+10.

Although shovel tests were completed at the originally proposed 100-foot intervals, the site had been identified during a previous transmission line survey (Wheaton 1982). The survey identified a twentieth century structure, with no artifacts recovered (see Wheaton 1982). The current

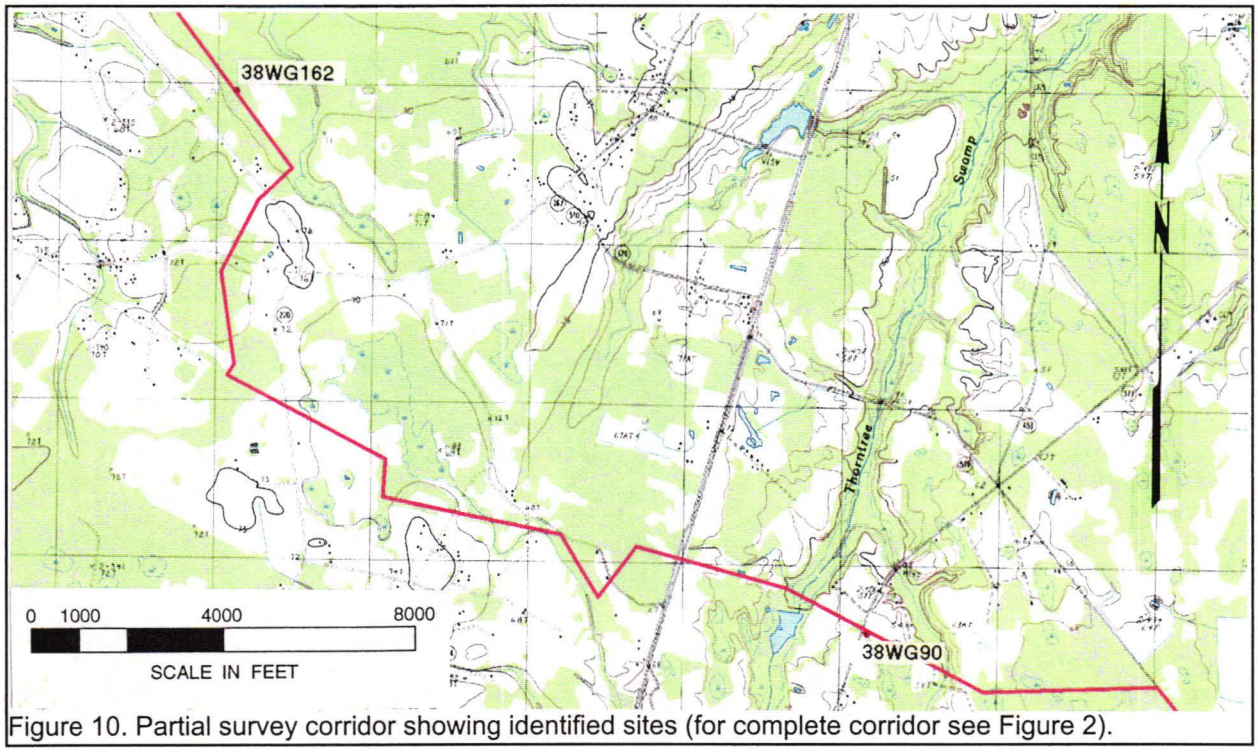

Figure 10. Partial survey corridor showing identified sites (for complete corridor see Figure 2).

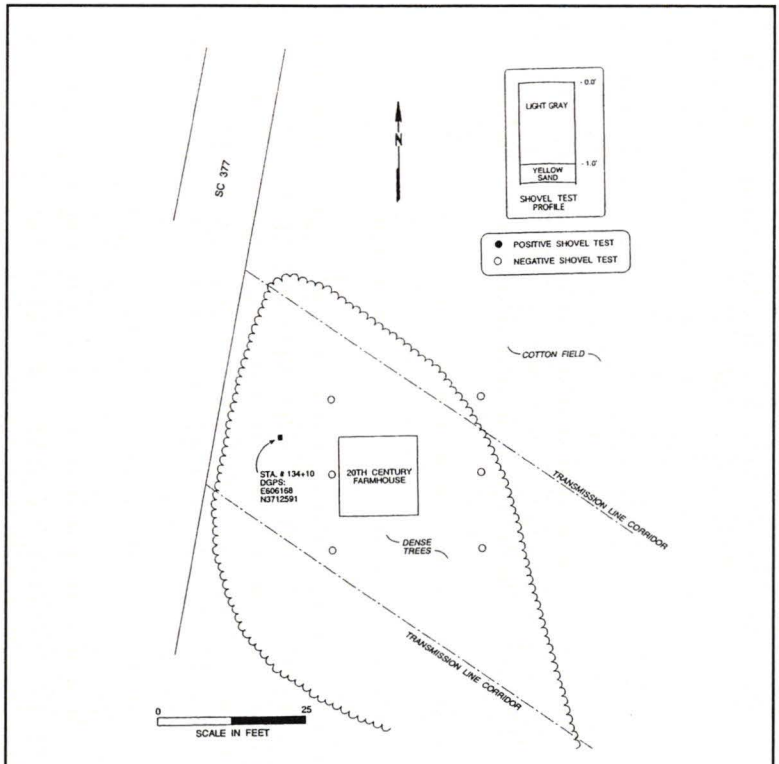

Figure 11. Sketch map and soil profile for 38WG90.

survey failed to identify an surface artifacts.

Close interval testing was performed at 25 foot intervals along the cardinal directions until two consecutive negative shovel tests were encountered. Nevertheless, all shovel tests were negative.

Shovel tests in the site area produced profiles which generally resemble Emporia fine loamy sands which have an Ap horizon of brown (10YR5/3) loamy sand to a depth of 0.7 foot over a yellowish brown (10YR5/8) sandy clay loam to a depth of 1.9 feet.

A site dimension was estimated to be about 30 feet by 30 feet, the size of the structure. The structure is located next to a cultivated field which may have destroyed the cultural evidence that may have existed in the area.

The structure, however, appears to post-date 1950, which would not allow the site to be eligible for the National Register. The house is also severely deteriorated, even since the previous survey. We concur with the previous recommendation of not eligible for inclusion on the National Register of Historic Places. No additional site management activities are recommended pending the review of the State Historic Preservation Office.

38WG162

Site 38WG162 consists of a


Figure 12. View of 38WG162 in pines and hardwoods.

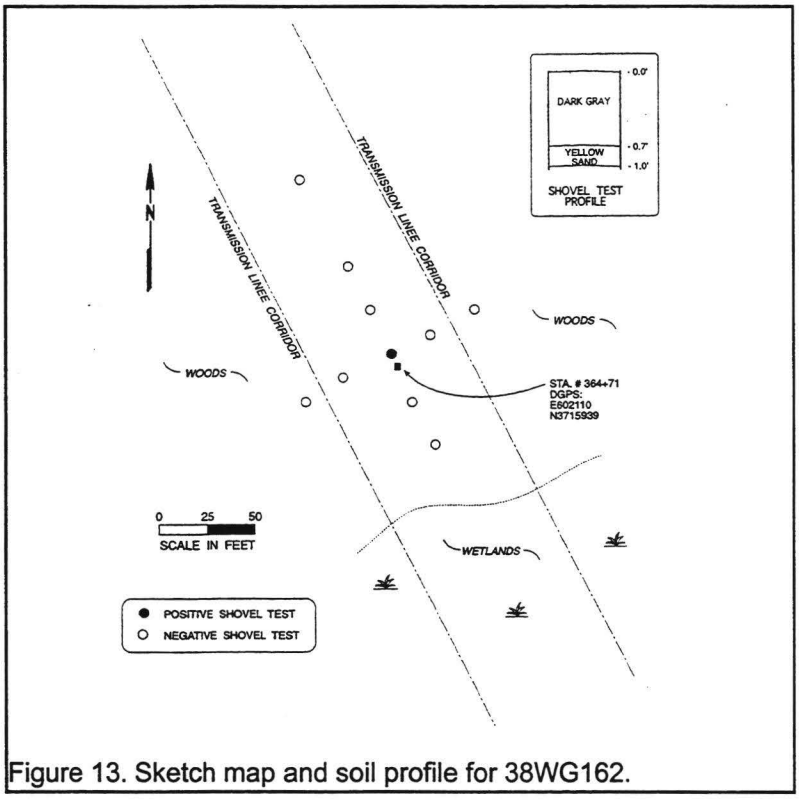

Figure 13. Sketch map and soil profile for 38WG162.

subsurface scatter of Middle Woodland pottery (Figure 13). It is located on an interior plain at an elevation of about 70 feet AMSL. A central UTM coordinate for the site is E602110 N3715939 (NAD27 datum).

Vegetation in the area consists of mixed pines and hardwoods. The closest permanent source of water is a tributary of Rocky Ford Creek located about 1700 feet west of the site area. Wetlands, however, are about 75 feet southeast of the site.

While shovel tests were conducted at the proposed 100 foot intervals, only one shovel test, located at Station 364+71, was positive. It contained eight Deptford Fabric Impressed pottery fragments. Close interval testing was performed at 25 foot intervals, but all shovel tests were negative.

Shovel tests in the area produced profiles typical of Lynchburg fine sandy loams which have an A horizon of very dark gray (10YR3/1) fine sandy loam to a depth of 0.5 foot over a light yellowish brown (19YR6/4) sandy loam to 1.0 foot in depth.

As previously mentioned, only one shovel test (Shovel Test 385) was positive, producing eight pieces of Middle Woodland pottery. Some pieces of the Deptford fabric impressed pottery mend together, which makes it possible that all the pieces come from the same pot.

While these sherds are diagnostic, the site did not produce any other artifacts, such as projectile points, flakes, or other specimens, which may point to the site being part of a larger camp. Given the small site size, it almost appears to be an "isolated" recovery. This site does not appear to contain the data sets to be able to address significant research questions about the Middle Woodland period. Therefore, this site is recommended not eligible for inclusion on the National Register of Historic Places. No additional management activities are recommended pending review by the State Historic Preservation Office.

Architectural Resources

No architectural additional architectural resources were identified for inclusion on the National Register of Historic Places beyond those already identified by the South Carolina Department of Archives and History.

CONCLUSIONS

This study involved the examination of 7.3 miles of corridor in south-central Williamsburg County, South Carolina. The tract is proposed for the use of a transmission line. This report, conducted for Mr. Tommy Jackson of Central Electric Power Cooperative, provides the results of that investigation and is intended to assist the company comply with their historic preservation responsibilities.

As a result of this investigation two archaeological sites, 38WG90 and 38WG162, were identified withing the study corridor. Site 38WG90 is a twentieth century structure while 38WG162 is a scatter of Middle Woodland pottery. Both sites are recommended not eligible for the National Register of Historic Places.

The surrounding areas are still fairly rural with only a few structures near the project area. Nevertheless, an APE 0.5 mile around the project area was examined, but no historic structures were identified which are intact and which appear to be potentially eligible for inclusion on the National Register of Historic Places beyond those previously identified.

It is possible that archaeological remains may be encountered in the area during construction. As always, the utility's contractors should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office, or Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No further land altering activities should take place in the vicinity of these discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

SOURCES CITED

Anderson, David G.
1979 *Excavations at Four Fall Line Sites: The Southeastern Beltway Project.* Commonwealth Associates, Inc., Jacksonville, Michigan. Submitted to the South Carolina Department of Highways and Public Transportation, Columbia.

Anderson, David G., Charles E. Cantley, and A. Lee Novick
1982 *The Mattassee Lake Sites: Archaeological Investigations Along the Lower Santee River in the Coastal Plain of South Carolina.* Commonwealth Associates, Jackson, Michigan.

Anderson, David G., Kenneth E. Sassaman, and Christopher Judge
1992 *Paleoindian and Early Archaic Period Research in the Lower Southeast: A South Carolina Perspective.* Council of South Carolina Professional Archaeologists, Columbia.

Anonymous
n.d. *South Carolina Statewide Survey of Historic Places Survey Manual.* S.C. Department of Archives and History, Columbia.

1884 *South Carolina in 1884: A View of the Industrial Life of the State.* The News and Courier, Charleston, South Carolina.

1976 *The Waccamaw Region Historic Preservation Plan.* Waccamaw Regional Planning and Development Council, Georgetown, South Carolina.

Anthony, Ronald W., Stanlee M. Miller, and Tom J. Reeves
1982 *Cultural and Environmental Assessments for the Proposed Hemingway Land Disposal Site, Williamsburg County, South Carolina.* Carolina Archaeological Services.

Baldwin, John L.
1973 *Climates of the United States.* U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Washington, D.C.

Barry, John M.
1980 *Natural Vegetation of South Carolina.* University of South Carolina, Columbia.

Bense, Judith A.
1994 *Archaeology of the Southeastern United States: Paleoindian to World War I.* Academic Press, New York.

Blanton, Dennis B., Christopher T. Espenshade, and Paul E. Brockington, Jr.
1986 *An Archaeological Study of 38SU83: A Yadkin Phase Site in the Upper Coastal Plain of South Carolina.* Garrow and Associates, Inc., Atlanta.

Boddie, William Willis
1923 *History of Williamsburg County.* The State Company, Columbia.

Cable, John
1991 *Archaeological Test Excavations on the Northeastern Perimeter of the Buck Hall Site (38CH644), Francis Marion National Forest, South Carolina.* New South Associates, Irmo, South Carolina.

Caldwell, Joseph R.
1958 *Trend and Tradition in the Prehistory of the Eastern United States.* Memoirs of the American Anthropological Association 88.

Coe, Joffre L.
1952 The Cultural Sequence of the Carolina Piedmont. In *Archaeology of the Eastern United States*, edited by J.B. Griffin, pp. 301-311. University of Chicago Press, Chicago.

1964 The Formative Cultures of the Carolina Piedmont. *Transactions of the American Philosophical Society* 54(5).

Cooke, C. Wythe
1936 *Geology of the Coastal Plain of South Carolina.* Bulletin 867. U.S. Geological Survey, Washington, D.C.

Derting, Keith M., Sharon L. Pekrul, and Charles J. Rinehart
1991 *A Comprehensive Bibliography of South Carolina Archaeology.* Research Manuscript 211. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Ferguson, Leland G.
1971 *South Appalachian Mississippian.* Ph.D. dissertation, University of North Carolina, Chapel Hill. University Microfilms, Ann Arbor, Michigan.

Fetters, Thomas
1990 *Logging Railroads of South Carolina.* Heimburger House Publishing, Forest Park, Illinois.

Goodyear, Albert C., John H. House, and Neal W. Ackerly
1979 *Laurens-Anderson: An Archaeological Study of the Inter-Riverine Piedmont.* Anthropological Studies 4, Occasional Papers of the Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Haag, William G.
1975 The Paleoecology of the South Atlantic Coast. *Geoscience and Man* 12:77-81.

Hanson, Glen T., Jr.
1982 The Analysis of Late Archaic-Early Woodland Adaptive Change Along the Middle Savannah River: A Proposed Study. *South Carolina Institute of Archaeology and Anthropology Notebook* 14:1-38.

Lefler, Hugh T., editor
1967 *Lawson's A New Voyage to Carolina.* University of North Carolina Press, Chapel Hill.

Louis Berger Group, Inc.
2000 *Cultural Resource Investigations of Proposed Federal Bureau of Prisons Site, Williamsburg County South Carolina.* The Louis Berger Group, Inc., Washington, D.C.

Mathew, William M., editor
1992 *Agriculture, Geology, and Society in Antebellum South Carolina: The Private Diary of Edmund Ruffin, 1843.* University of Georgia Press, Athens.

Mathews, Thomas D., Frank W. Stapor, Jr., Charles R. Richter, John V. Miglarese, Michael D. McKenzie, and Lee R. Barclay
1980 *Ecological Characterization of the Sea Island Coastal Region of South Carolina and Georgia, vol. 1.* Office of Biological Services, Fish and Wildlife Service, Washington, D.C.

McGill, Samuel D.
1952 *Narrative of Reminiscences in Williamsburg County.* Kingstree

Lithographic Company, Kingstree, South Carolina.

Michie, James L.
1977 *The Late Pleistocene Human Occupation of South Carolina.* Unpublished Honor's Thesis, Department of Anthropology, University of South Carolina, Columbia.

Mills, Robert
1972 [1826]*Statistics of South Carolina.* Hurlbut and Lloyd, Charleston, South Carolina. 1972 facsimile ed. The Reprint Company, Spartanburg, South Carolina.

Oliver, Billy L.
1981 *The Piedmont Tradition: Refinement of the Savannah River Stemmed Point Type.* Unpublished Master's thesis, Department of Anthropology, University of North Carolina, Chapel Hill.

Penney, James T.
1945 Natural Resources. In *South Carolina: Economic and Social Conditions in 1944,* edited by W.H. Callcott, pp. 1-27. University of South Carolina, Columbia.

Phelps, David A.
1983 Archaeology of the North Carolina Coast and Coastal Plain: Problems and Hypotheses. In *The Prehistory of North Carolina: An Archaeolgical Symposium,* edited by Mark A. Mathis and Jeffrey J. Crow, pp. 1-52. North Carolina Division of Archives and History, Department of Cultural Resources, Raleigh.

Pitts, J.J.
1974 *Soil Survey of Florence and Sumter Counties, South Carolina.* U.S. Department of Agriculture, Soil Conservation Service, Washington, D.C.

Plummer, Gayther L.
1975 18th Century Forests in Georgia. *Georgia Academy of Science Bulletin* 33(1):1-19.

Richards, Horace G.
1950 *Geology of the Coastal Plain of North Carolina.* Transactions of the American Philosophical Society 40(1).

Roberts, Wayne D.
1987 *Archaeological Investigations of U.S. 17A/S.C. 41 Improvements Project, Georgetown and Williamsburg Counties.* S.C. Department of Highways and Public Transportation.

Ryan, Thomas M.
1972 *Archaeological Survey of the Columbia Zoological Park, Richland and Lexington Counties, South Carolina.* Research Manuscript Series 37. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Sandifer, Paul A., John V. Miglarese, Dale R. Calder, John J. Manzi, and Lee A. Barclay
1980 *Ecological Characterization of the Sea Island Coastal Region of South Carolina and Georgia, vol. 3.* Office of Biological Services, Fish and Wildlife Service, Washington, D.C.

Sassaman, Kenneth E., Mark J. Brooks, Glen T. Hanson, and David G. Anderson
1990 *Native American Prehistory of the Middle Savannah River Valley.* Savannah River Archaeological Research Papers 1. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Service, E.M.
1966 *The Hunters.* Prentice-Hall, Englewood Cliffs.

Sharer, G. Terry
1971 Indigo in Carolina, 1671-1796. *South Carolina Historical Magazine* 72:94-103.

South, Stanley A.
1976 An Archaeological Survey of Southeastern North Carolina. *South Carolina Institute of Archaeology and Anthropology Notebook 93.*

Starr, Rebecca
1984 *A Place Called Daufuskie: Island Bridge to Georgia, 1520-1830.* Unpublished M.A. thesis, Department of History, University of South Carolina, Columbia.

Stoltman, James B.
1974 *Groton Plantation: An Archaeological Study of a South Carolina Locality.* Monographs of the Peabody Museum 1, Harvard University, Cambridge.

Taylor, Richard L., editor
1984 *Cultural Resources Survey of the Proposed Pee Dee Electric Generating Facility in Florence County, South Carolina.* Commonwealth Associates, Jackson, Michigan.

Townsend, Jan, John H. Sprinkle, Jr., and John Knoerl
1993 *Guidelines for Evaluating and Registering Historical Archaeological Sites and Districts.* Bulletin 36. National Park Service, National Register of Historic Places, Washington, D.C.

Trinkley, Michael
1980a *Additional Investigations at 38LX5.* South Carolina Department of Highways and Public Transportation, Columbia.

1980b *Investigation of the Woodland Period Along the South Carolina Coast.* Ph.D. dissertation. Department of Anthropology, University of North Carolina, Chapel Hill.

1990 *An Archaeological Context for the South Carolina Woodland Period.* Chicora Foundation Research Series 22. Chicora Foundation, Inc., Columbia, S.C.

2000 *Archaeological Survey of the Central Electric Power Cooperative Trio Tap Line, Williamsburg County, South Carolina.* Research Contribution 285. Chicora Foundation, Inc., Columbia.

Trinkley, Michael, Debi Hacker, and Natalie Adams
1993 *Life in the Pee Dee: Prehistoric and Historic Research on the Roche Carolina Tract, Florence Coutny, South Carolina.* Research Series 39. Chicora Foundation Inc., Columbia.

Vivian, Daniel J.
2001 *South Carolina Statewide Survey of Historic Properties.* S.C. Department of Archives and History, Columbia.

Voorhies, M.R.
1974 Pleistocene Vertebrates with Boreal Affinities in the Georgia Piedmont. *Quaternary Research* 4:85-93.

Wallace, David D.
1951 *South Carolina: A Short History, 1520 - 1948.* University of South Carolina Press, Columbia.

Walthall, John A.
1980 *Prehistoric Indians of the Southeast: Archaeology of*

Alabama. University of Alabama Press, University.

Ward, Bobby J.
1989 *Soil Survey of Williamsburg County, South Carolina.* United States Department of Agriculture, Washington, D.C.

Ward, Trawick
1978 *The Archaeology of Whites Creek, Marlboro County, South Carolina.* Research Laboratories of Anthropology, University of North Carolina, Chapel Hill.

1983 Whites Creek: The Second Time Around. *South Carolina Antiquities* 15:63-65.

Watson, E.J.
1916 *Twelf Annual Report of the Commissioner of Agriculture, Commerce and Industries of the State of South Carolina.* Gonzales and Bryan, Columbia.

Watts, W.A.
1970 The Full Glacial Vegetation of Northwestern Georgia. *Ecology* 51:17-33.

1971 Postglacial and Interglacial Vegetation History of Southern Georgia and Central Florida. *Ecology* 52:666-690.

1975 Vegetation Record for the Last 20,000 Years from a Small Marsh on Lookout Mountain, Northwestern Georgia. *Geological Society of America Bulletin* 86:287-291.

1980 Late-Quaternary Vegetation History at White Pond on the Inner Coastal Plain of South Carolina. *Quaternary Research* 13:187-199.

Whitehead, Donald R.
1965 Palynology and Pleistocene Phytogeography of Unglaciated Eastern North America. In *The Quaternary of the United States,* edited by H.E. Wright, Jr. and David G. Frey, Princeton University Press, Princeton.

1967 Studies of Full-Glacial Vegetation and Climate in Southeastern United States. In *Quaternary Paleoecology,* edited by E.J. Cushing and H.E. Wright, pp. 237-248. Yale University Press, New Haven.

1972 Developmental and Environmental History of the Dismal Swamp. *Ecological Monographs* 42:301-315.

1973 Late-Wisconsin Vegetational Changes in Unglaciated Eastern North America. *Quaternary Research* 3:621-631.

Waterhouse, Richard
1975 England, the Caribbean, and the Settlement of Carolina. *Journal of American Studies* 9:259-281.

Wheaton, Thomas
1982 *Cultural Resource Survey of the Proposed Cross Kingstree Transmission Line, Moncks Corner, South Carolina.* Earth Systems Divisions, Marietta, Georgia.

Williams, Stephen B., editor
1968 *The Waring Papers: The Collected Works of Antonio J. Waring, Jr.* Papers of the Peabody Museum of Archaeology and Ethnology 58.